AMENDMENTS TO THE CLAIMS

1-7. **(Canceled)**

8. (Currently amended) A biocompatible polymer composite for use in thermally-related medical therapies, the composite comprising:

a base polymer component; ~~and~~

a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K; and, ~~further comprising~~

a ferromagnetic filler component dispersed in the base polymer, wherein the ferromagnetic filler is present in a concentration sufficient to raise the temperature of at least a portion of the base polymer component above its melting temperature when the biocompatible polymer composite is exposed to an alternating magnetic field.

9. (Currently amended) A biocompatible polymer composite for use in thermally-related medical therapies, the composite comprising:

a base polymer component; ~~and~~

a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K; and, ~~further comprising~~

a chromophore filler component dispersed in the base polymer, wherein the chromophore filler is configured to cooperate with a selected wavelength of light such that, upon exposure of the biocompatible polymer composite to the selected wavelength of light, the chromophore filler raises the temperature of at least a portion of the base polymer component above its melting temperature.

10. (Currently amended) A biocompatible polymer composite for use in thermally-related medical therapies, the composite comprising:

a base polymer component; ~~and~~

a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K; and, ~~further comprising~~

a light reflecting filler component dispersed in the base polymer, wherein the light reflecting filler component is configured to reflect light of a selected wavelength such that the biocompatible polymer composite thermally insulates a portion of the structure that is covered by the biocompatible polymer when light of the selected wavelength is employed to heat a region of the structure adjacent to or including the biocompatible polymer.

11-14. (Canceled)

15. (Previously presented) A biocompatible polymer composite for use in thermally-related medical therapies, the composite comprising a base polymer component and a dispersed filler component, the filler component having a thermal conductivity of less than 5 W/m-K, wherein the composite is formed into microshells having hollow cores.

16. (Original) A biocompatible polymer composite as in claim 15 wherein the microshell cores are filled with a gas.

17. (Original) A biocompatible polymer composite as in claim 15 wherein the microshell cores are filled with CO_2.

18. (Original) A biocompatible polymer composite as in claim 15 wherein the microshell cores are filled with first and second cooperating polymerizable components.

19. (Original) A biocompatible polymer composite as in claim 15 wherein the microshell cores are filled with a drug.

20. (Canceled)

21. (Currently amended) A method of making a biocompatible polymer composite for use in thermally-related medical therapies, the method comprising the steps of:

providing a biocompatible base polymer;

providing a biocompatible dispersable filler ~~material~~ component that has a thermal conductivity of less than ~~about~~ 5 W/m-K;

mixing the biocompatible dispersible filler component in the base polymer when in a melt state; ~~and~~

mixing an electrically conductive filler component into the base polymer; and

forming the composite into microshells having hollow cores.

22. (Canceled)

23. (Original) A method of making a biocompatible polymer composite as in claim 21 further comprising the step of mixing an anti-oxidation agent into the base polymer.

24. (Currently amended) A method of making a biocompatible polymer composite as in claim 21 wherein the mixing step includes mixing the biocompatible dispersible filler component in the base polymer in an inert gas atmosphere for extending the mixing time and limiting oxidation reactions of the filler component and base polymer.

25. (Currently amended) A method of making a biocompatible polymer composite as in claim 21 wherein the mixing step includes mixing the biocompatible dispersible filler component in the base polymer in a gas atmosphere that is free of oxygen.

26. (Currently amended) A method of making a biocompatible polymer composite as in claim 21 wherein the mixing step includes mixing the biocompatible dispersible filler component in the base polymer in an inert gas atmosphere that is heavier than air.

27. (Original) A method of making a biocompatible polymer composite as in claim 21 further comprising the step of applying cross-linking means to the base polymer comprising at least one of chemical cross-linking and cross-linking by irradiation.

28. (Previously presented) A method of making a biocompatible polymer composite as in claim 27 wherein the cross-linking irradiation is at least one of gamma, UV and E-beam irradiation.

29-35. (Canceled)

36. (New) A method of making a biocompatible polymer composite for use in thermally-related medical therapies, the method comprising the steps of:

providing a biocompatible base polymer;

providing a first dispersible filler component that has a thermal conductivity of less than 5 W/m-K;

providing a second dispersible filler component, different than the first,

mixing the biocompatible dispersible filler component in the base polymer when in a melt state; and

mixing an electrically conductive filler component into the base polymer;

wherein the second dispersible filler component is configured to cooperate with an energy source in communication with the biocompatible polymer composite so as to heat at least a portion of the biocompatible polymer composite to a temperature above its melting point.

37. (New) The method of Claim 36, wherein the second dispersible filler component comprises a ferromagnetic filler component present in a concentration sufficient to raise the temperature of at least a portion of the biocompatible polymer composite to a temperature above its melting point when the biocompatible polymer composite is exposed to an alternating magnetic field.

38. (New) The method of Claim 36, wherein the second dispersible filler component comprises a chromophore filler configured to cooperate with a selected wavelength of light such that, upon exposure of the biocompatible polymer composite to the selected wavelength of light, the chromophore filler raises the temperature of at least a portion of the base polymer component above its melting temperature when the biocompatible polymer composite.

39. (New) The method of Claim 36, wherein the second dispersible filler component comprises a light reflecting filler component configured to reflect light of a selected wavelength such that the biocompatible polymer composite thermally insulates a portion of the structure that is covered by the biocompatible polymer when light of the selected wavelength is employed to heat a region of the structure adjacent to or including the biocompatible polymer.